

=> s divergent

L10 20381 DIVERGENT

=> s 19 and 110

L11 187 L9 AND L10

=> s 17 and 111

L12 11 L7 AND L11

=> display 112

ENTER ANSWER NUMBER OR RANGE (1):1-11

ENTER DISPLAY FORMAT (CIT):cit

1. 5,790,242, Aug. 4, 1998, Chromatic optical ranging sensor; Howard Stern, et al., 356/4.04, 4.05, 4.06 [IMAGE AVAILABLE]
2. 5,724,463, Mar. 3, 1998, Projection display with electrically controlled waveguide-routing; David A. G. Deacon, et al., 385/27, 9, 10, 18, 47, 901 [IMAGE AVAILABLE]
3. 5,694,385, Dec. 2, 1997, Optical pickup apparatus; Yoshitaka Takahashi, et al., 369/112, 110, 120, 124 [IMAGE AVAILABLE]
4. 5,664,032, Sep. 2, 1997, Display panel with electrically controlled waveguide-routing; William K. Bischel, et al., 385/4, 2, 8, 10, 14, 15, 16, 17, 37, 40, 130, 131, 901 [IMAGE AVAILABLE]
5. 5,544,268, Aug. 6, 1996, Display panel with electrically-controlled waveguide-routing; William K. Bischel, et al., 385/4, 16 [IMAGE AVAILABLE]
6. 5,537,617, Jul. 16, 1996, Multi-channel optical head and data storage system; James M. Zavislans, et al., 385/37; 359/629; 369/121; 385/9, 10 [IMAGE AVAILABLE]
7. 5,353,273, Oct. 4, 1994, Multi-channel optical head and data storage system; James M. Zavislans, et al., 369/121, 44.21 [IMAGE AVAILABLE]
8. 4,984,229, Jan. 8, 1991, Autofocus system; Francis J. Nedvidek, 369/44.24, 121 [IMAGE AVAILABLE]
9. 4,863,246, Sep. 5, 1989, Optical system and components for optical disk reader; Erik W. Anthon, 359/487, 583; 360/114; 369/110 [IMAGE AVAILABLE]
10. 4,399,529, Aug. 16, 1983, Optical device for recording and reading on a data carrier; Dominique Leterme, et al., 369/110, 112, 122 [IMAGE AVAILABLE]
11. 4,334,300, Jun. 8, 1982, Stigmatic optical device and an optical recording head equipped with said device; Louis Arquie, et al., 369/44.12; 359/732; 369/44.14, 44.38, 112, 122 [IMAGE AVAILABLE]

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=> display acc 5172368 4771414 4569039 5410529 5251198 5050155 5056080
MORE? (END):3900247 5251058 5331621 5136152
MORE? (END):end
ENTER DISPLAY FORMAT (CIT):cit
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1. 5,172,368, Dec. 15, 1992, Reader for optical recording medium; Jean-Claude Lehureau, 369/112, 44.24, 109, 121 [IMAGE AVAILABLE]
2. 4,771,414, Sep. 13, 1988, Optical pick-up apparatus; Hiroshi Yoshimatsu, 369/110, 13, 112 [IMAGE AVAILABLE]
3. 4,569,039, Feb. 4, 1986, Optical information output device; Ichiro Okumura, et al., 369/44.14; 250/201.5, 202; 369/110, 112 [IMAGE AVAILABLE]
4. 5,410,529, Apr. 25, 1995, Optical pickup apparatus; Yukio Kurata, et al., 369/109, 116 [IMAGE AVAILABLE]
5. 5,251,198, Oct. 5, 1993, Reading device for multi-layered optical information carrier; James H. Strickler, 369/110, 94, 100, 112 [IMAGE AVAILABLE]
6. 5,050,155, Sep. 17, 1991, Pick-up device for use in an optical information recording system utilizing a diffraction grating with blaze characteristics; Yukio Kurata, et al., 369/112, 44.14, 107 [IMAGE AVAILABLE]
7. 5,056,080, Oct. 8, 1991, Optical recording/reproducing system using interference techniques; James T. Russell, 369/100, 44.26, 103, 109, 112 [IMAGE AVAILABLE]
8. 3,900,247, Aug. 19, 1975, Optical modulator having compensation for thermal and space charge effects; Safwat George Zaky, 359/247, 249, 256 [IMAGE AVAILABLE]
9. 5,251,058, Oct. 5, 1993, Multiple beam exposure control; Thomas D. MacArthur, 359/249; 347/239; 358/296; 359/250, 256, 259, 276, 286, 305 [IMAGE AVAILABLE]
10. 5,331,621, Jul. 19, 1994, Optical pickup apparatus and a hologram element used for same; Takahiro Miyake, et al., 369/112; 359/15; 369/44.12, 103 [IMAGE AVAILABLE]
11. 5,136,152, Aug. 4, 1992, Hybrid optical pickup with integrated power emission and reading photodetectors; Wai-Hon Lee, 257/699, 433; 369/112 [IMAGE AVAILABLE]

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=> file jpoab

FILE 'JPOABS' ENTERED AT 12:17:10 ON 27 AUG 1998
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*   J A P A N E S E   P A T E N T   A B S T R A C T S   *
*   *
*   CURRENTLY, DATA IS LOADED THROUGH DECEMBER 1996, FOR THE   *
*   JAPANESE PATENT OFFICE ABSTRACTS (JPOABS) AND THROUGH   *
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* JANUARY 27, 1998, FOR THE GLOBAL PATENT INFORMATION
* JAPANESE PATENT OFFICE (GPI-JPO) FILE. THANKS.
* * * * *

IRD CNOABS

=> d his

(FILE 'USPAT' ENTERED AT 11:57:06 ON 27 AUG 1998)

L1 0 S TAKSHARSHI, YOSHITAKA/IN
L2 0 S TAKAHARSHI, YOSHITAKA/IN
L3 30 S TAKAHASHI, YOSHITAKA/IN
L4 16 S AKIYAMA, HIROSHI/IN
L5 0 S EMOTO, MASASAMI/IN
L6 44 S L3 OR L4
L7 209 S QUARTER(W)WAVE AND LIGHT AND OBJECTIVE AND SEPARATING
L8 1 S L6 AND L7
L9 3853 S BIREFRINGENT
L10 20381 S DIVERGENT
L11 187 S L9 AND L10
L12 11 S L7 AND L11

FILE 'JPOABS' ENTERED AT 12:17:10 ON 27 AUG 1998

=> s 17

1550 QUARTER
96355 WAVE
224 QUARTER(W)WAVE
320163 LIGHT
118593 OBJECTIVE
57734 SEPARATING
L13 2 QUARTER(W)WAVE AND LIGHT AND OBJECTIVE AND SEPARATING

=> s 112

1550 QUARTER
96355 WAVE
224 QUARTER(W)WAVE
320163 LIGHT
118593 OBJECTIVE
57734 SEPARATING
359 BIREFRINGENT
1579 DIVERGENT
L14 0 L7 AND L11

=> s 111

359 BIREFRINGENT
1579 DIVERGENT
L15 0 L9 AND L10

=> display 113

ENTER ANSWER NUMBER OR RANGE (1):1-2

ENTER DISPLAY FORMAT (CIT):all

03-113735

May 15, 1991
TWO-BEAM OPTICAL DISK HEAD

L13: 1 of 2

INVENTOR: HIDEO HIRUKAWA
 ASSIGNEE: YOKOGAWA ELECTRIC CORP, et al. (60)
 APPL NO: 01-246973
 DATE FILED: Sep. 22, 1989
 PATENT ABSTRACTS OF JAPAN
 ABS GRP NO: P1237
 ABS VOL NO: Vol. 15, No. 316
 ABS PUB DATE: Aug. 13, 1991
 INT-CL: G11B 7/125; G11B 7/135

ABSTRACT:

PURPOSE: To stabilize the power and position of a beam by using two laser diodes of the same wavelength band disposed in such a manner that the oscillation directions of electric field vectors intersect orthogonally with each other.

CONSTITUTION: The two **light** beams outputted by the laser diodes 2, 3 are of the same wavelength band and are so disposed that the oscillation directions of the electric field vectors intersect orthogonally with each other. The multiplexing and **separating** of the **light** beams from the diodes 2, 3 are executed by a polarized beam splitter 13. The return **light** to the respective diodes 2, 3 is prevented by a **quarter wave** plate 14 disposed between the splitter 13 and an **objective** lens 16. Since the laser diodes of the same wavelength band are used in such a manner, there is no need for using a dichroic mirror and cut filter which change in spectral characteristic with temp. The fluctuations in high frequency and servo signals by temp. are, therefore, decreased.c

63-25847

Feb. 3, 1988
OPTICAL PICKUP

L13: 2 of 2

INVENTOR: MASAYUKI KATO, et al. (4)
 ASSIGNEE: FUJITSU LTD
 APPL NO: 61-168524
 DATE FILED: Jul. 17, 1986
 PATENT ABSTRACTS OF JAPAN
 ABS GRP NO: P724
 ABS VOL NO: Vol. 12, No. 233
 ABS PUB DATE: Jul. 5, 1988
 INT-CL: G11B 7/135

ABSTRACT:

PURPOSE: To miniaturize an optical disk memory device and shorten the access time by using a hologram in the principal part of an optical pickup to make the optical pick-up small-sized and **light-weight**.

CONSTITUTION: An **objective** lens part 3 consists of a hologram lens 31 and a polyhedron 32, and a polarized **light separating** part 4 consists of a **quarter- wave** plate 15m plural polyhedrons 41, plural films 42 which are interposed between polyhedrons 41 and have the polarized **light separating** function, and plural mirrors 43 formed

on polyhedrons 41, and a **light** input/output part 5 consists of a **light** source 11 which emits a coherent **light**, a photodetector 18 which detects a signal **light**, and hologram lenses 51 which are formed on polyhedrons 41 and convert the diverging **light** from the **light** source 11 to the collimated **light** and converges the signal **light** on the photodetector 18. The hologram is a very thin film, and optical lenses are substituted with hologram lenses to unify the optical pickup, and the optical pickup is made considerably small- sized and **light-weight**.

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y

U.S. Patent & Trademark Office LOGOFF AT 12:18:37 ON 27 AUG 1998